

CLAIMS

1 1. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, the residential
3 gateway comprising:

4 a software module to receive control parameters from a control server via the
5 Internet connection and cause the residential gateway to communicate with the residential
6 device to provide control of the residential device based on the received control
7 parameters; and

8 wherein the control server determines the control parameters from relevant control
9 information accessed from one or more information servers on the Internet and
10 operational information of the residential device.

11 2. A residential gateway that connects an Internet connection to an in-home network which
12 comprises at least one residential device connected to the residential gateway, as per claim 1,
13 wherein the residential device is a home irrigation system that comprises:

14 an irrigation controller connected to the residential gateway; and

15 at least one sprinkler connected to the irrigation controller.

16 3. A residential gateway that connects an Internet connection to an in-home network which
17 comprises at least one residential device connected to the residential gateway, as per claim 2,
18 wherein the control parameters are a water cycle of the irrigation system.

1 4. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as per claim 3,
3 wherein the control information is climatic information.

1 5. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as per claim 4,
3 wherein the operational information comprises water usage.

1 6. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as claim 5,
3 wherein the water cycle is also determined based on an economic setpoint.

1 7. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as per claim 5,
3 wherein the information server is a weather station server that stores climatic information from a
4 plurality of weather stations.

1 8. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as per claim 7,
3 wherein the irrigation controller is connected to the residential gateway via an IEEE 802.11b
4 wireless interface.

1 9. A residential gateway that connects an Internet connection to an in-home network which
2 comprises at least one residential device connected to the residential gateway, as per claim 1,
3 wherein the control parameters are also determined based on an economic setpoint.

1 10. A system for providing automated control of at least one residential device connected to
2 an in-home network, the system comprising:

3 a residential gateway connecting the in-home network to an Internet connection;

4 a control server that determines control parameters for controlling the residential
5 device, the control server determining the control parameters from relevant control
6 information accessed from one or more information servers on the Internet and
7 operational information of the residential device; and

8 wherein the residential gateway comprises a software module that receives the
9 control parameters from the control server via the Internet connection and causes the
10 residential gateway to communicate with the residential device to provide control of the
11 residential device based on the received control parameters.

1 11. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 10, wherein the residential device is a home irrigation system
3 that comprises:

4 an irrigation controller connected to the in-home network; and

5 at least one sprinkler connected to the irrigation controller.

1 12. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 11, wherein the control parameters are a water cycle of the
3 irrigation system.

1 13. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 12, wherein the control information is climatic information.

1 14. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 13, wherein the operational information comprises water
usage.

1 15. A system for providing automated control of at least one residential device connected to
2 an in-home network, as claim 14, wherein the water cycle is also determined based on an
economic setpoint.

1 16. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 14, wherein the information server is a weather station server
3 that stores climatic information from a plurality of weather stations.

1 17. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 16, wherein the in-home network uses an IEEE 802.11b
3 wireless interface.

1 18. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 10, further comprising:

3 a customer computer system connected to the residential gateway to provide a
4 user with override and control capabilities and to display current and tracked operational
5 information

1 19. A system for providing automated control of at least one residential device connected to
2 an in-home network, as per claim 10, wherein the control parameters are also determined based
3 on an economic setpoint.

1 20. A method of providing automated control of at least one residential device connected to a
2 residential gateway, the method comprising:

3 retrieving relevant control information from one or more information servers on
4 the Internet;

5 tracking operational information of the residential device;

6 determining control parameters of the residential device based on the tracked
7 operational information and the retrieved control information;

8 communicating the control parameters to the residential gateway via an Internet
9 connection;

10 wherein the residential gateway communicates with the residential device to
11 provide control of the residential device based on the control parameters.

1 21. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as per claim 20, wherein the residential device is a home irrigation system
3 that comprises:

4 an irrigation controller connected to the in-home network; and
5 at least one sprinkler connected to the irrigation controller.

1 22. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as per claim 21, wherein the control parameters are a water cycle of the
3 irrigation system.

23. A method of providing automated control of at least one residential device connected to a
residential gateway, as per claim 22, wherein the control information is climatic information.

24. A method of providing automated control of at least one residential device connected to a
residential gateway, as per claim 23, wherein the operational information comprises water usage.

1 25. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as claim 24, wherein the water cycle is also determined based on an
3 economic setpoint.

1 26. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as per claim 24, wherein the information server is a weather station server
3 that stores climatic information from a plurality of weather stations.

1 27. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as per claim 26, wherein the in-home network uses an IEEE 802.11b
3 wireless interface.

1 28. A method of providing automated control of at least one residential device connected to a
2 residential gateway, as per claim 20, wherein the control parameters are also determined based on
3 an economic setpoint.